

## WHAT IS CLAIMED IS:

- 1.) A method of marking an article for retrospective identification, comprising the steps of:
  - a) attaching a reporter element to an article;
  - 5 b) subjecting the reporter element to energy stimulation;
  - c) detecting the reporter element's response to the stimulation; and
  - d) using a pre-defined algorithm, converting the response to an alpha-numeric code.
- 10 2.) A method according to claim 1, further comprising the step of attaching the reporter element to a label and attaching the label to an article.
- 15 3.) A method according to claim 2, further comprising the step of printing the alpha-numeric code on the label.
- 20 4.) A method according to claim 1, further comprising the step of recording the alpha-numeric code in a database in connection with an identification of the article to which the reporter element is attached.
- 25 5.) A method of marking an article for retrospective identification, comprising the steps of :
  - a) entraining a reporter element in a layer of a microcoded particle;
  - b) attaching the microcoded particle to an article.
- 30 6.) A method of marking an article for retrospective identification, comprising the steps of:
  - a) applying a mark containing spectral code to an article;
  - b) conducting spectral analysis of said spectral code to determine its spectral signature;
  - c) computing a printable code from the spectral signature using an algorithm;
  - d) printing said printable code on said article.

7.) A method according to claim 6, further comprising the steps of recording said code in a database in conjunction with information identifying the article.

8.) A method according to claim 6, further comprising the steps of assigning a unique identifier to an article to be marked and attaching said unique identifier to said article.

9.) A method according to claim 8, wherein said unique identifier is a serialized bar code.

10.) A method according to claim 9, wherein said code and said bar code are printed on a label.

11.) A method according to claim 6, wherein reporter elements are incorporated into microcoded particles.

12.) A method according to claim 6, wherein said spectral code includes two reporter elements having different spectral responses to energy stimulation.

13.) A method according to claim 6, wherein said mark is applied to a label and said printable code is printed on said label, and said label is attached to an article for retrospective identification of the article.

14. A method of marking an article for retrospective identification, comprising the steps of :

- a) entraining a reporter element in a layer of a microcoded particle;
- B) attaching the microcoded particle to an article;
- C) subjecting the reporter element to a stimulus; and
- D) detecting the reporter element response to the stimulation.

15. Method of claim 14 further comprising the step of entraining two different types of reporter elements within one layer of a microcoded particle.

16. Method of claim 14 further comprising the steps of entraining one or more different reporter elements in two or more layers of a microcoded particle.

5 17. Method of claim 14 wherein said microcoded particle is a multilayered particle with adjacent layers being of detectably different colors.

18. Method of claim 14 wherein said microcoded particle has indicia in or on its surface.

19. Method according to claim 14 wherein said reporter element, when exposed to an energy stimulus, yields a spectral signature.

20. An identification particle for use in retrospective identification, comprising:

- 15 a) a microparticle;
- b) reporter element entrained in a layer of said microparticle.